

# Best Available Copy

Receipt  
1/FEB

PTO/SB/21 (02-04)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

		Application Number	10/538,162
		Filing Date	June 13, 2006
		First Named Inventor	Danny A. Grant
		Art Unit	2182
		Examiner Name	unassigned
Total Number of Pages in This Submission	14	Attorney Docket Number	IMMR-0152C

### ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimers (3)	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  Request to correct filing receipt; Copy of filing receipt; Copy of declaration & power of attorney.
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)		
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		
Remarks		

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	David B. Ritchie, Reg. No. 31,562
Signature	
Date	9-20-2006

### CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Monica Pizarro
Signature	
	Date 9/21/06

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Danny A. Grant et al.  
SERIAL NO.: 10/538,162 CONFIRMATION NO. 3271  
FILING DATE: June 13, 2006  
TITLE: Using Haptic Effects To Enhance Information Content In Communications  
EXAMINER: unassigned  
ART UNIT: 2182

---

Certificate of Mailing

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Missing Parts, P.O. Box 1450 Alexandria, VA 22313-1450, on the date printed below:

Date: 9/21/06 Signature:   
Monica Pizarro

---

Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REQUEST TO CORRECT FILING RECEIPT

We received the attached filing receipt for the above-identified case. It has several errors. It incorrectly lists the third inventors city of residence. The third inventors residence is "Cupertino". The fifth inventors last name is also misspelled. The fifth inventors last name is "Chang". Please amend the Filing Receipt (see attached Declaration & Power of Attorney which lists the correct spelling of the third inventors residence and the fifth inventors last name).

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1698.

Respectfully submitted,  
THELEN REID & PRIEST LLP

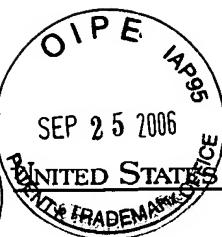


\_\_\_\_\_  
David B. Ritchie  
Reg. No. 31,562

Dated: September 20, 2006  
  
THELEN REID & PRIEST LLP  
P.O. Box 640640  
San Jose, CA 95164-0640  
Telephone: (408) 292-5800  
Fax: (408) 287-8040

**COPY**

SEP 25 2006



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPL NO.	FILING OR 371 (C) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/538,162	06/13/2006	2182	2130	IMMR-152C (034701-514)	9	28	8

CONFIRMATION NO. 3271

60140  
 IMMERSION - THELEN REID & PRIEST L.L.P.  
 THELEN REID & PRIEST L.L.P.  
 P.O. BOX 640640  
 SAN JOSE, CA 95164-0640

**RECEIVED**

AUG 14 2006

## FILING RECEIPT



\*OC000000019918674\*

THELEN REID & PRIEST  
 IP DOCKETING

Date Mailed: 08/08/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Danny A. Grant, Montreal, QC, CANADA;  
 Jeffrey Eid, Danville, CA;  
 Shoichi Endo, Cupertino, CA; Cupertino  
 Erik J. Shahoian, San Ramon, CA;  
 Dean C. Chang, Gaithersburg, MD; Chang

## Assignment For Published Patent Application

Immersion Corporation, A Delaware Corporation

Power of Attorney: The patent practitioners associated with Customer Number 60140.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/US03/38868 12/08/2003  
 which claims benefit of 60/431,662 12/08/2002

## Foreign Applications

If Required, Foreign Filing License Granted: 08/04/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/538,162**

Projected Publication Date: 11/16/2006

Reviewed by: mp Date: 9/20/06

No Action required:

Action Required: ✓ inventor misspelled;  
inventor residence misspelled

Mail log DOCKETED  
 CPI AUG 16 2006  
 Excel Date

**Early Publication Request: No**

**Title**

Using haptic effects to enhance information content in communications

**Preliminary Class**

710

## **PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

### **LICENSE FOR FOREIGN FILING UNDER**

**Title 35, United States Code, Section 184**

**Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The

date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



# COPY

Docket No.: IMMR-0152C (034701-000514)

## DECLARATION & POWER OF ATTORNEY

As a below-named inventor, I hereby declare that:

My correct city and state of residence; my post office address and my citizenship are stated below next to my name.

I believe myself to be the original, first and sole inventor (if only one name is listed below) or an original and first joint inventor (if more than one name is listed below) of the subject matter which is disclosed and claimed and for which a patent is sought on the invention entitled:

### **"Using Haptic Effects to Enhance Information Content in Communications"**

The specification of this subject matter:

is attached hereto.

was filed on June 8, 2005 as United States Application Number 10/538,162  
and was amended on \_\_\_\_\_ (if applicable).

was filed on December 8, 2003 as PCT International Application Number  
PCT/US2003/038868  
and was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified patent application, including the claims, as amended by any amendment(s) referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 C.F.R. §1.56(a).

I hereby claim foreign priority benefits under 35 U.S.C. §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

<u>PRIOR FOREIGN APPLICATION(S)</u>	<u>Priority Claimed</u>	<u>Certified Copy Attached?</u>
-------------------------------------	-------------------------	---------------------------------

Number	Country	Month/Day/Year Filed	Yes	No	Yes	No

**PROVISIONAL PATENT APPLICATION(S)**

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

60/431,662	December 8, 2002
Application Number	Filing Date

**PARENT PATENT APPLICATION(S)**

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in these prior United States application(s) in the manner provided by 35 U.S.C. §112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

Application No.	Filing Date	Status (Issued, Pending, Abandoned)
-----------------	-------------	-------------------------------------

Application No.	Filing Date	Status (Issued, Pending, Abandoned)
-----------------	-------------	-------------------------------------

Application No.	Filing Date	Status (Issued, Pending, Abandoned)
-----------------	-------------	-------------------------------------

Application No.	Filing Date	Status (Issued, Pending, Abandoned)
-----------------	-------------	-------------------------------------

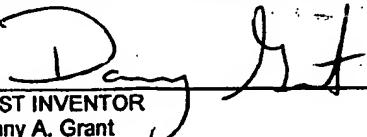
I hereby appoint practitioners associated with **Customer Number: 60,140** as attorneys of record with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith. If this application is assigned by me I agree and understand that the above-named attorneys will represent the assignee and not me.

Please send all correspondence and direct all telephone calls to the address associated with  
**Customer Number 60,140.**

I, the undersigned, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

<b>FULL NAME OF FIRST Name INVENTOR 1</b>		<b>MIDDLE Initial(s)</b>	<b>LAST Name</b>	
Danny		A.	Grant	
<b>RESIDENCE AND CITIZENSHIP</b>	<b>City</b>	<b>State or Foreign Country</b>		<b>Country of Citizenship</b>
Montreal		Quebec, Canada		Canada
<b>POST OFFICE ADDRESS</b>	<b>Number and Street</b>	<b>City</b>	<b>State or Country</b>	<b>Zip Code</b>
5961 de la Roche, #4		Montreal	Quebec, Canada	H2S 2C8
<b>FULL NAME OF FIRST Name INVENTOR 2</b>		<b>MIDDLE Initial(s)</b>	<b>LAST Name</b>	
Jeffrey			Eid	
<b>RESIDENCE AND CITIZENSHIP</b>	<b>City</b>	<b>State or Foreign Country</b>		<b>Country of Citizenship</b>
Danville		California		USA
<b>POST OFFICE ADDRESS</b>	<b>Number and Street</b>	<b>City</b>	<b>State or Country</b>	<b>Zip Code</b>
105 Shadwell Drive		Danville	California	94506
<b>FULL NAME OF FIRST Name INVENTOR 3</b>		<b>MIDDLE Initial(s)</b>	<b>LAST Name</b>	
Shoichi			Endo	
<b>RESIDENCE AND CITIZENSHIP</b>	<b>City</b>	<b>State or Foreign Country</b>		<b>Country of Citizenship</b>
Cupertino		California		Japan
<b>POST OFFICE ADDRESS</b>	<b>Number and Street</b>	<b>City</b>	<b>State or Country</b>	<b>Zip Code</b>
20268 Northwest Square		Cupertino	California	95014
<b>FULL NAME OF FIRST Name INVENTOR 4</b>		<b>MIDDLE Initial(s)</b>	<b>LAST Name</b>	
Erik		J.	Shahoian	
<b>RESIDENCE AND CITIZENSHIP</b>	<b>City</b>	<b>State or Foreign Country</b>		<b>Country of Citizenship</b>
San Ramon		California		USA
<b>POST OFFICE ADDRESS</b>	<b>Number and Street</b>	<b>City</b>	<b>State or Country</b>	<b>Zip Code</b>
3208 El Suyo Drive		San Ramon	California	94583
<b>FULL NAME OF FIRST Name INVENTOR 5</b>		<b>MIDDLE Initial(s)</b>	<b>LAST Name</b>	
Dean		C.	Chang	
<b>RESIDENCE AND CITIZENSHIP</b>	<b>City</b>	<b>State or Foreign Country</b>		<b>Country of Citizenship</b>
Gaithersburg		Maryland		USA
<b>POST OFFICE ADDRESS</b>	<b>Number and Street</b>	<b>City</b>	<b>State or Country</b>	<b>Zip Code</b>
330 Alderwood Drive		Gaithersburg	Maryland	20878

I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

  
FIRST INVENTOR

Date

Danny A. Grant

06/04/25

SECOND INVENTOR

Date

Jeffrey Eid

THIRD INVENTOR

Date

Shoichi Endo

FOURTH INVENTOR

Date

Erik J. Shohian

FIFTH INVENTOR

Date

Dean C. Chang

I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

---

FIRST INVENTOR  
Danny A. Grant

Date

---

SECOND INVENTOR  
Jeffrey Eid

Date

---

THIRD INVENTOR  
Shoichi Endo

Date

---

FOURTH INVENTOR  
Erik J. Shohlan

Date

---

FIFTH INVENTOR  
Dean C. Chang

Date

I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

---

FIRST INVENTOR Date  
Danny A. Grant

---

SECOND INVENTOR Date  
Jeffrey Eid

---

THIRD INVENTOR Date  
Shoichi Endo

---

FOURTH INVENTOR Date  
Erik J. Shohian

---

FIFTH INVENTOR Date  
Dean C. Chang

I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

---

FIRST INVENTOR Date  
Danny A. Grant

---

SECOND INVENTOR Date  
Jeffrey Eid

---

THIRD INVENTOR Date  
Shoichi Endo

---

FOURTH INVENTOR Date  
Erik J. Shottman *Shaholani* S-19-06

---

FIFTH INVENTOR Date  
Dean C. Chang

I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

---

FIRST INVENTOR Date  
Danny A. Grant

---

SECOND INVENTOR Date  
Jeffrey Eid

---

THIRD INVENTOR Date  
Shoichi Endo

---

FOURTH INVENTOR Date  
Erik J. Shohian

---

FIFTH INVENTOR Date  
Dean C. Chang

## 37 C.F.R. §1.56

**Duty to disclose information material to patentability**

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**